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IN THE UNITED STATES PATENT & TRADEMARK OFFICE

IN RE APPLICATION OF

:

TORU KOYANAGI, ET AL.

EXAMINER: MORRIS

SERIAL NO: 10/589,782

:

FILED: AUGUST 17, 2006

ART UNIT: 1625

FOR: ANTHRANILAMIDES, PROCESS
FOR THE PRODUCTION THEREOF,
AND PEST CONTROLLERS
CONTAINING THE SAME

DECLARATION UNDER 37 C.F.R. §1.132

ASSISTANT COMMISSIONER FOR PATENTS
WASHINGTON, D.C. 20231

SIR:

I, Masayuki Morita, state that:

1. I graduated from the Faculty of Agriculture, Saga University, Japan in 1982 and received a Master's degree from Saga University in 1984.
2. I am an inventor of this application and have been employed by Ishihara Sangyou Kaisha, Ltd. for 23 years as a researcher in the field of biological evaluation of insecticides.
3. I understand the English language or, at least, that the contents of the Declaration were made clear to me prior to executing the same.
4. I am familiar with the above-identified application and know that the current claims, define anthranilamide compound represented by the formula (I), compositions containing that compound, a method of producing that compound, and uses of that compound.

5. I understand that the U.S. Patent Office has rejected the claims as being obvious in view of Lahm (WO 03/015518), Lahm (WO03/015519), Berger (U.S. 2004/0209923) and Hughes (US 7,247,647).

6. Applicants have presented comparative data in the specification at pages 59-60 where compounds of Formula I as defined in the claims are compared to the cited Lahm and Berger references. The compounds of Formula I have significantly better “knock-down” rate of alkyl substituted by cycloalkyl versus those of Lahm 1, Lahm 2 and Berger.

7. As described in Test Example 11 of the present specification, the compound of the present invention shows fast- acting knockdown activities against *Haemaphysalis longicornis*. Its fast-acting activities can be observed even at the concentration of 1 $\mu\text{g}/\text{ml}$ and 0.1 $\mu\text{g}/\text{ml}$ as indicated in Table 1. Having compared the compound of the present invention and the compound of the cited references, the activity of the compound of the present invention at the concentration of 0.1 $\mu\text{g}/\text{ml}$ is superior to those of the compounds of the cited references at 10 $\mu\text{g}/\text{ml}$. Namely, the compound of the present invention shows excellent activities against ticks at the level of over 100 times as compared with the compounds of the cited references.

8. The additional tests on controlling effects were carried out such that the concentration of the compound was changed to 1/10 and 1/100 (1 $\mu\text{g}/\text{ml}$ and 0.1 $\mu\text{g}/\text{ml}$). These tests were carried out under my supervision and control.

9. Such activities of the compound of the present invention against ticks are neither disclosed nor suggested in the cited references, and I believe that this effect is unexpected from the cited references.

10. In addition, I believe that the specific compounds tested demonstrates a trend from which I can conclude that the evidence is representative of the compounds of general formula (I) as defined in the claims. commensurate in scope with claimed subject matter that is alleged to be *prima facie* obvious.

US application serial no. 10/589,782
Declaration under 37 CFR § 1.132

11. The undersigned declares further that all statements made herein of his own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of this application or any patent issuing thereon.

Masayuki Morita
Signature

January 20, 2009
Date

Table 1 Knockdown Activities against *Haemaphysalis longicornis*

		KT ₅₀ value		
		10 μg/ml	1 μg/ml	0.1 μg/ml
Compound No.3 of the present invention		9 min. 8 min.	11 min. 8 min.	21 min. 55 min.
Compound No.9 of the present invention		7.5 min. 6 min.	7.5 min. 6 min.	10 min. 6 min.
Comparative compound A (Compound 497 in WO03/015518) (Compound 2 in WO03/015519) (Compound 484 in US2004/0209923)		40 min. 80 min.	200 min. 250 min.	—* —*
Comparative compound B (Compound 530 in WO03/015518) (Compound 27 in WO03/015519) (Compound 509 in US2004/0209923)		120 min. 80 min.	250 min. 70 min.	200 min. 100 min.

In the Table, “-” shows that KT50 value was not obtained.